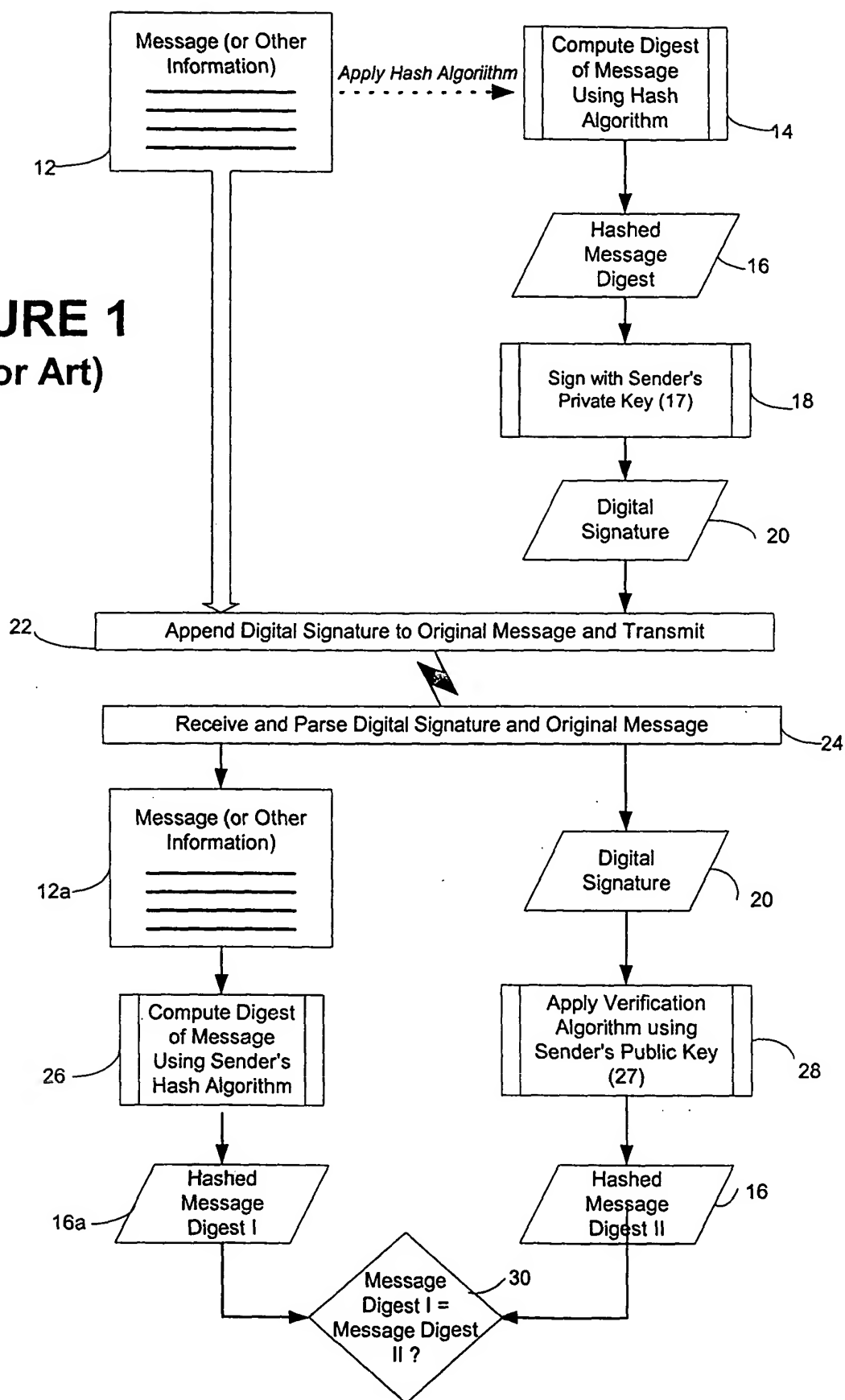
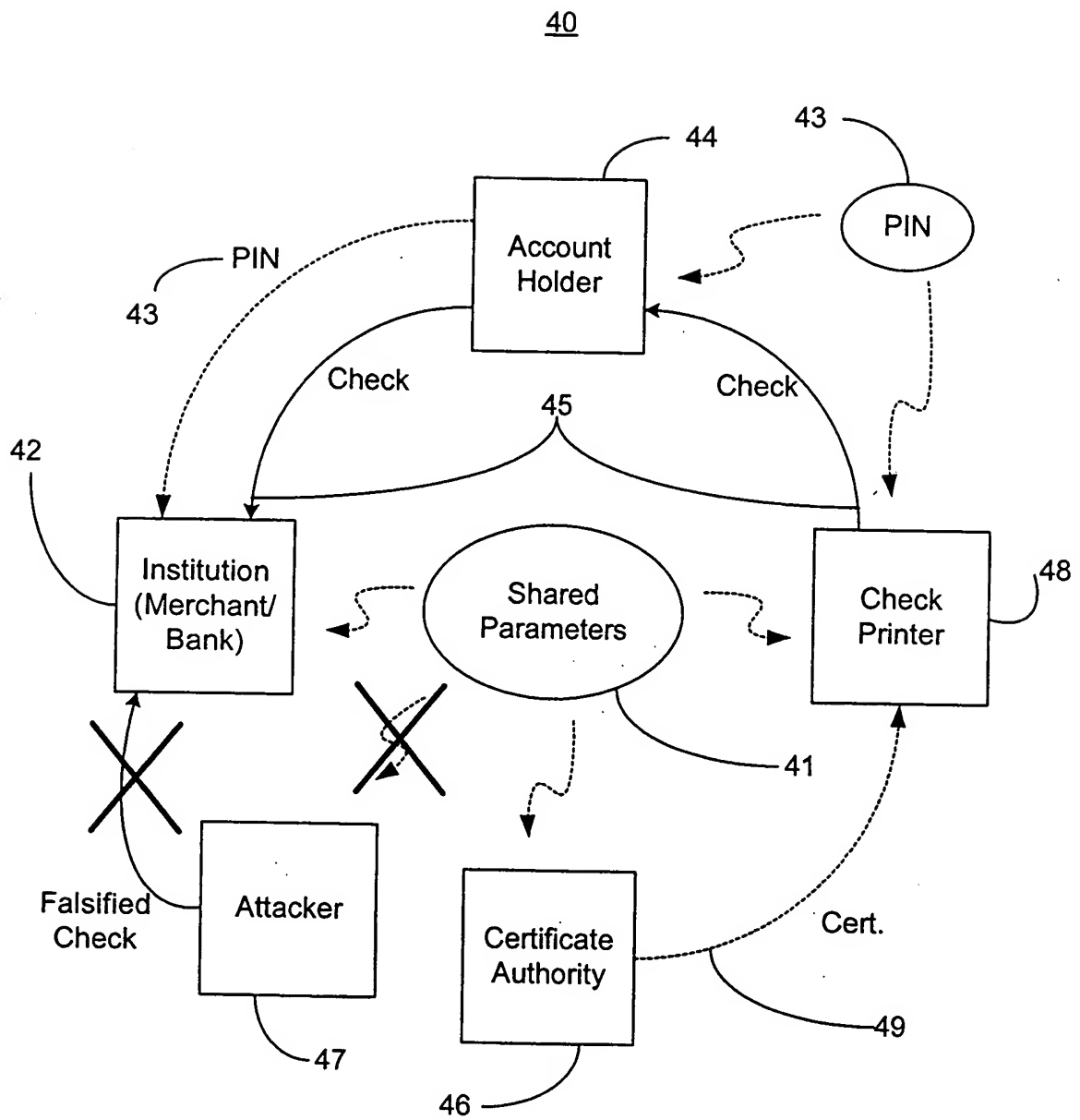


**FIGURE 1**  
(Prior Art)



**FIGURE 2**

45

<b>John Q. Public</b> 123 Wilson Ave. Anywhere, USA	<b>ABC Bank Corp.</b> 456 Main St. Anywhere, USA	<b>101</b>  Date _____
Pay To The Order Of _____		\$ <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px; vertical-align: middle;"></span>  _____ Dollars
Memo _____		
⑆072000326⑆ 1234567⑈ 101		

90

**FIGURE 3 (Prior Art)**

	Certificate field description	No. bytes stored
51	Number of bytes in certificate <i>m</i>	1 byte
52	Certificate version number	2 byte
53	Certificate serial number	4 bytes
54	Date certificate becomes valid	3 bytes
55	Date certificate expires	3 bytes
56	Public key data bytes	22 bytes
57	Name of public key owner	<i>m</i> -77 bytes
58	Digital signature	42 bytes

ECDSA based short certificate format.

50

**FIGURE 4**

92 **John Q. Public**  
 123 Wilson Ave.  
 Anywhere, USA


45 **ABC Bank Corp.**  
 456 Main St.  
 Anywhere, USA

101

Date \_\_\_\_\_

Pay To  
 The Order Of \_\_\_\_\_ \$   
 \_\_\_\_\_ Dollars

Memo \_\_\_\_\_

60 

90 **810720003261 1234567 101**

91

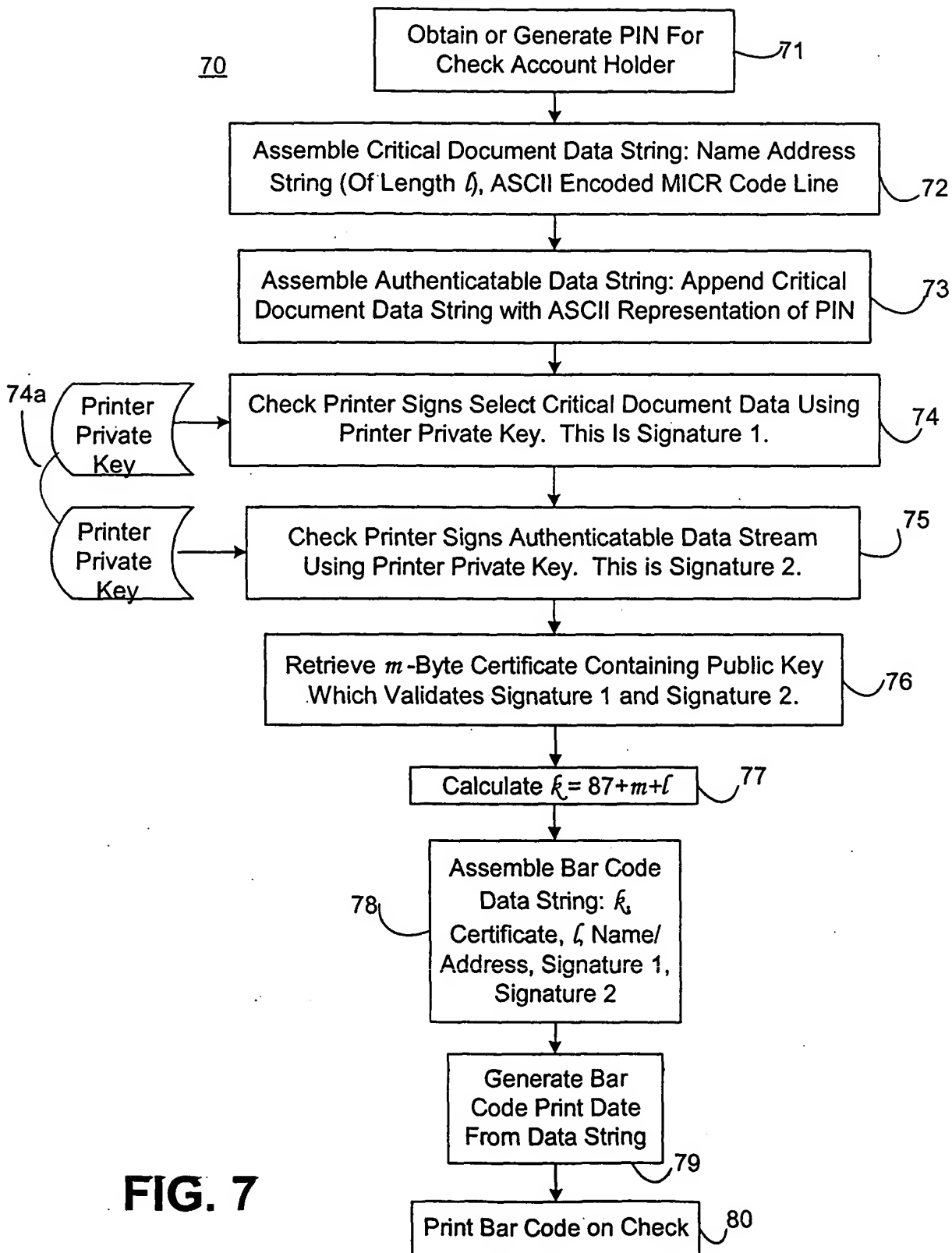
93

**FIGURE 5**

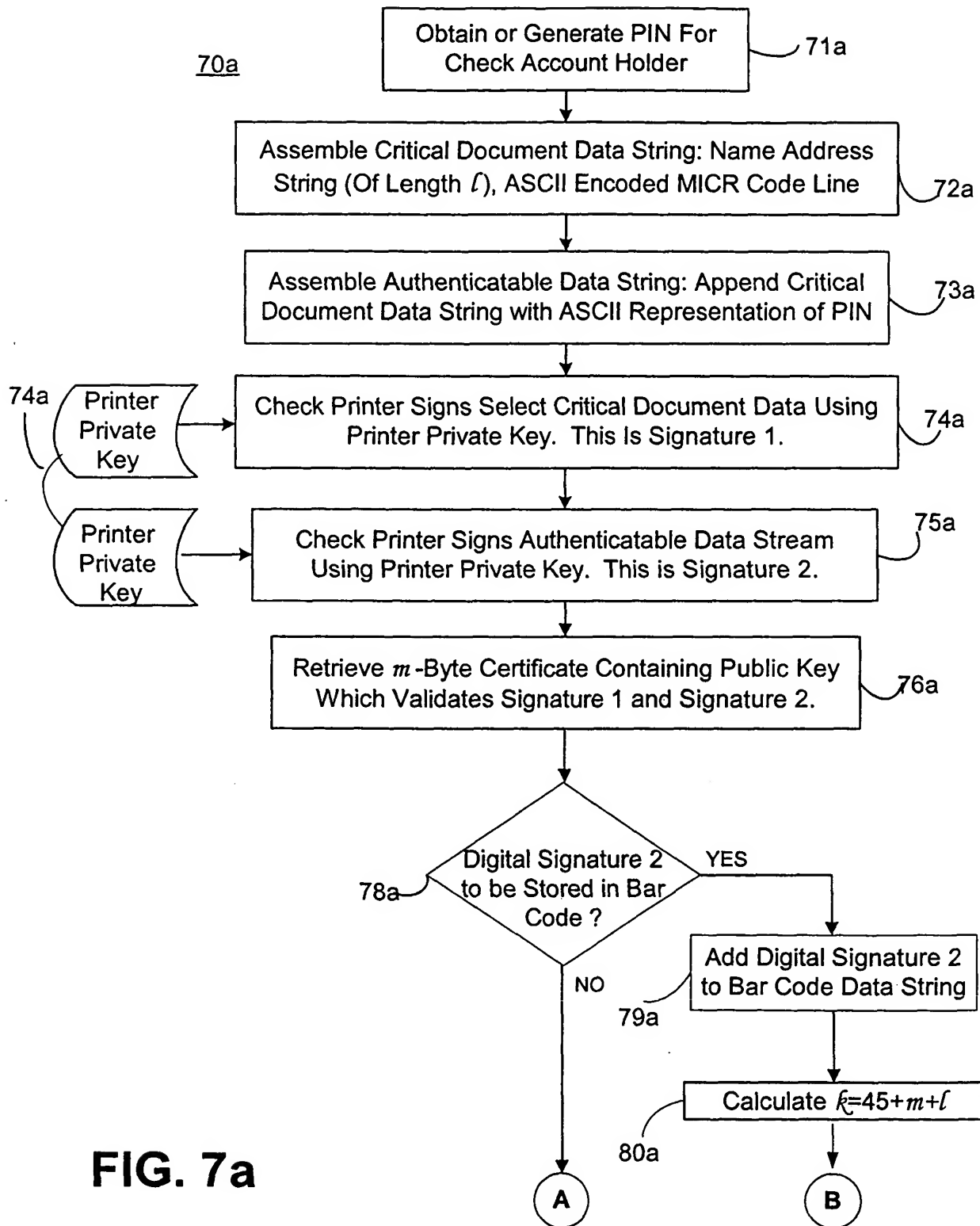
Field No.	Bar code field description	No. bytes stored
61 1	Number of bytes in bar code: $k$	2 bytes
62 2	Certificate	$m$ bytes
63 3	Number of bytes $l$ in Field No. 4 ( $l=0$ if no non-MICR information included)	1 byte
64 4	Non-MICR Critical Document Data (e.g., account name/address field or payee name, amount and issue date)	$l$ bytes
65 5 (optional)	Digital Signature 2 (on critical doc. data + PIN)	42 bytes
66 6 (optional)	Digital Signature 1 (on critical document data)	42 bytes

Bar code data string 60

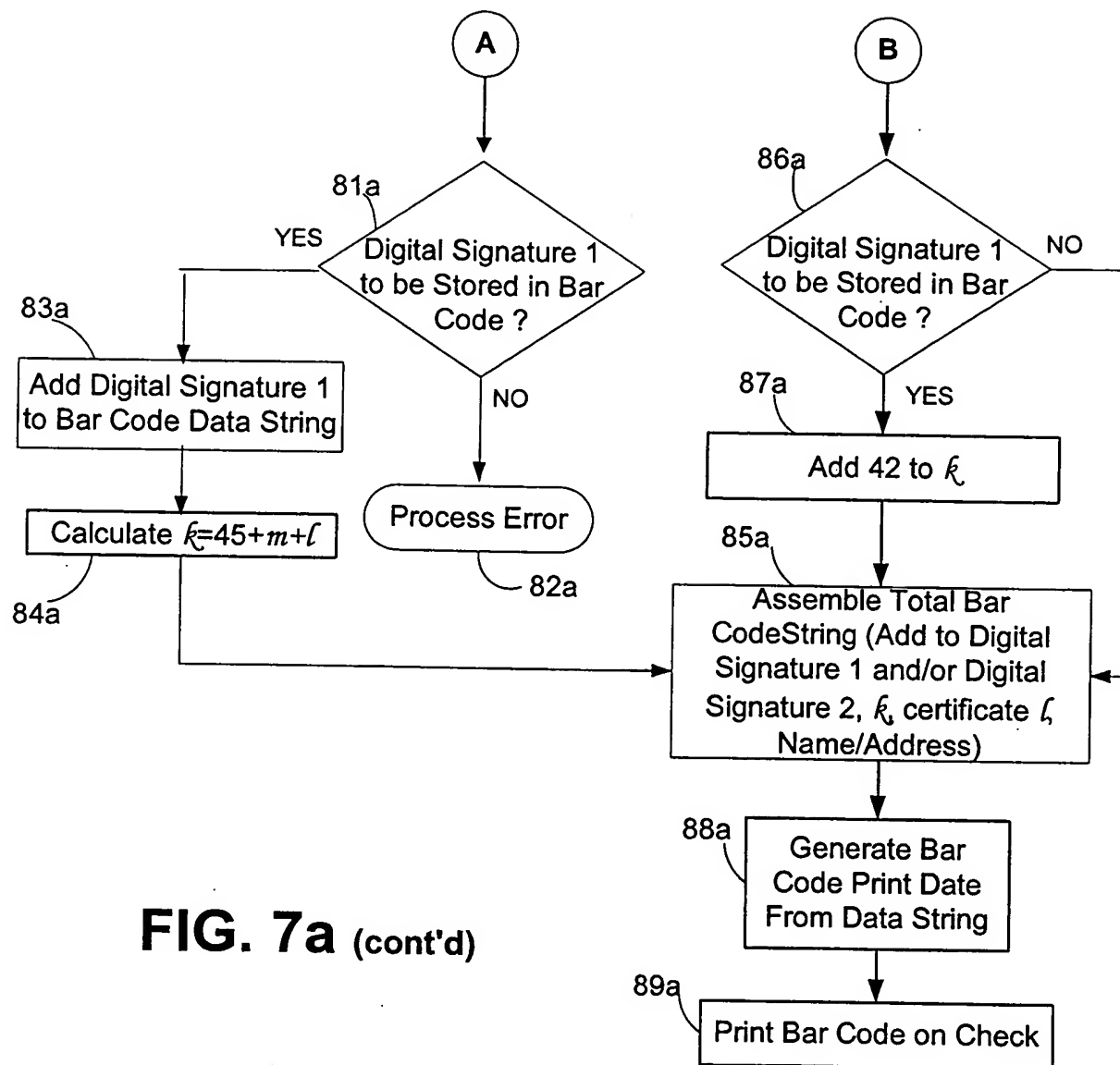
**FIGURE 6**



**FIG. 7**



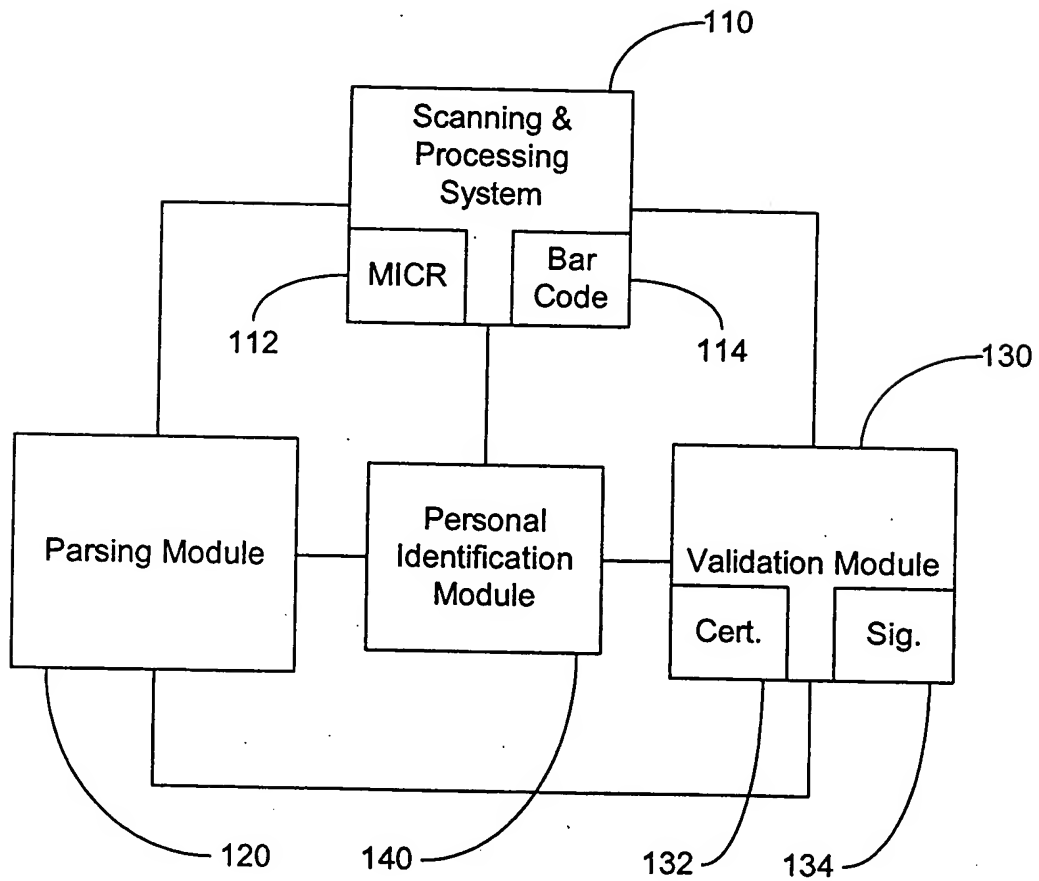
**FIG. 7a**



**FIG. 7a** (cont'd)

100

Check Reading System



**FIG. 8**



200

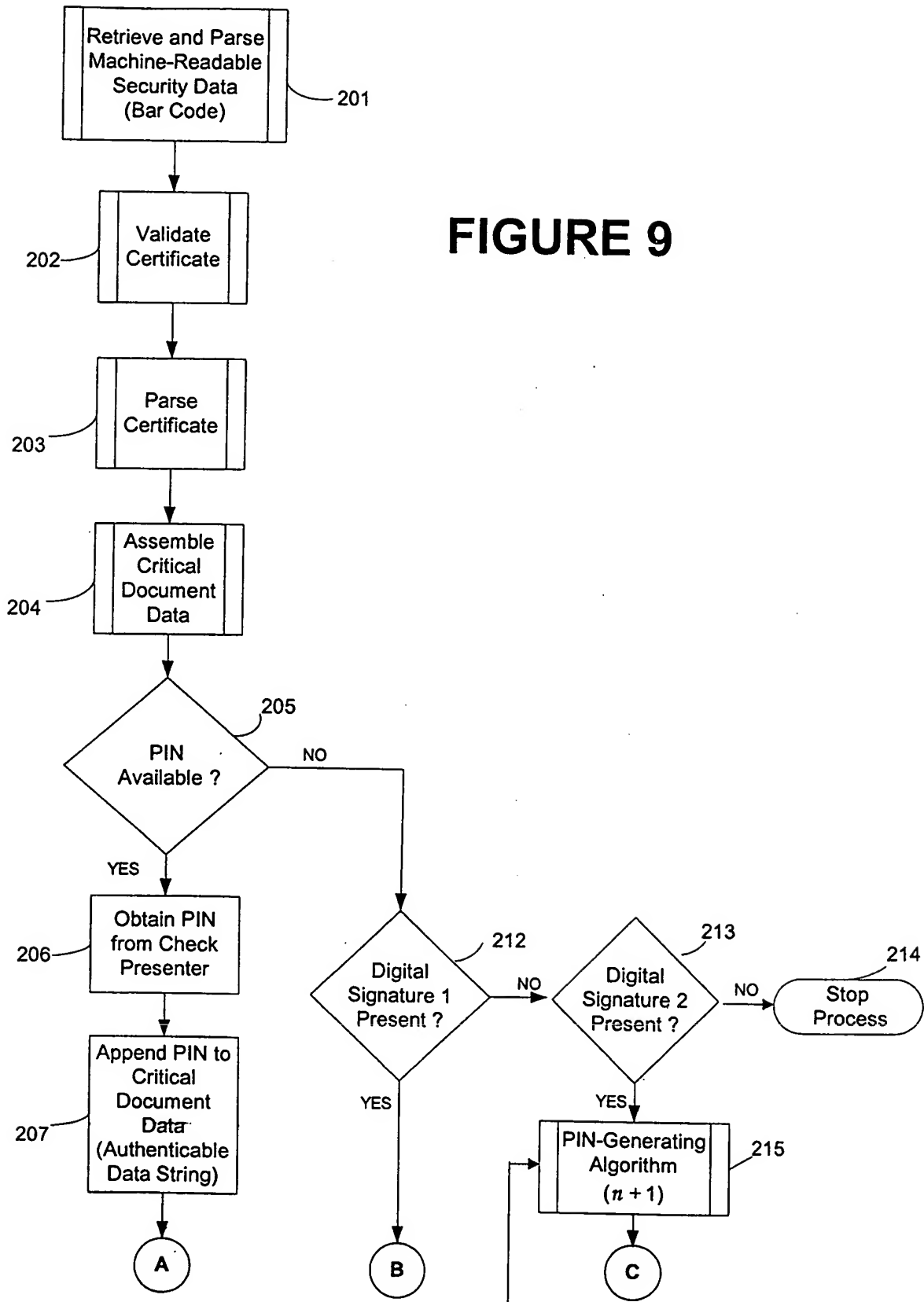
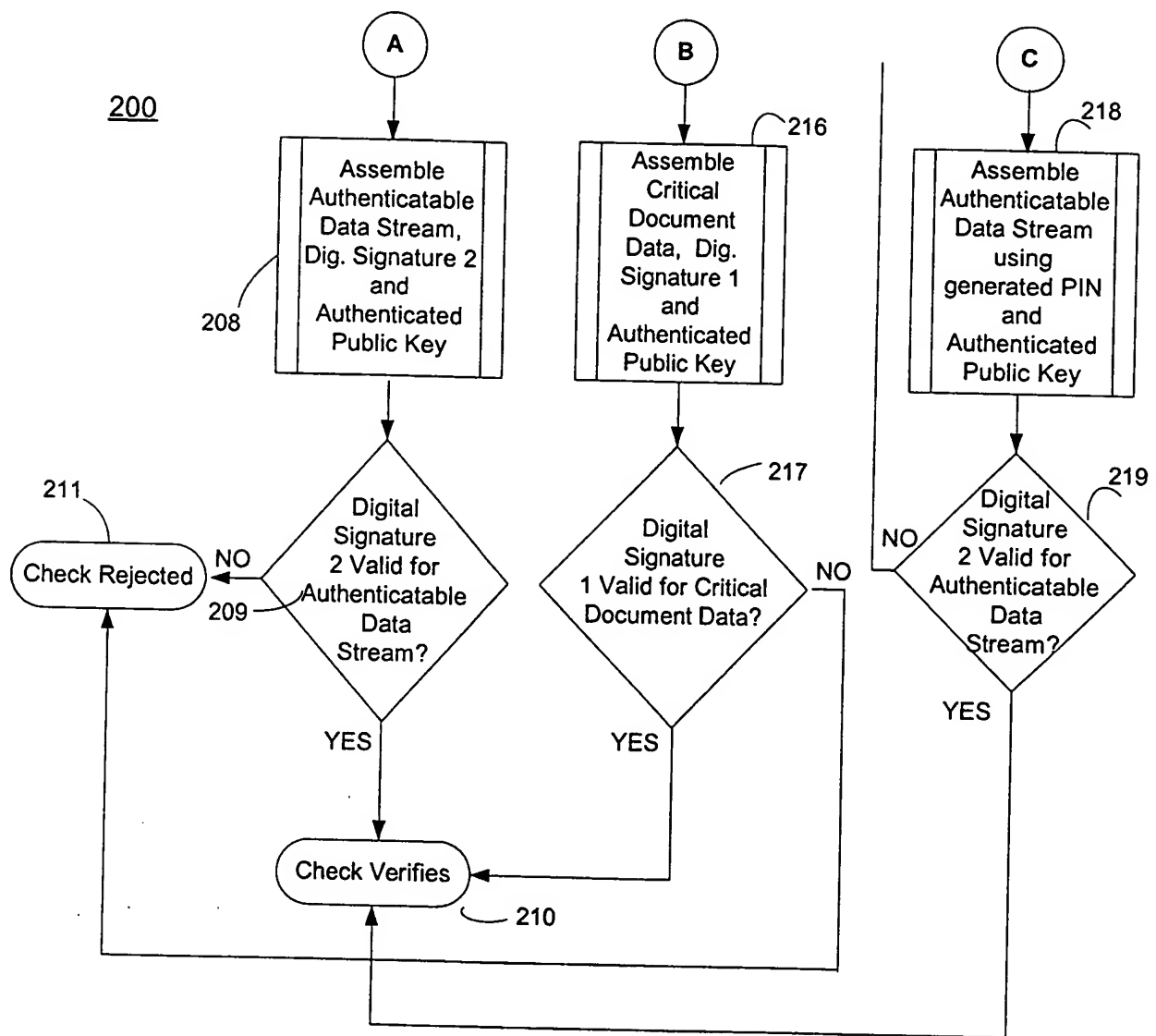


FIGURE 9



**FIGURE 9** (cont'd)

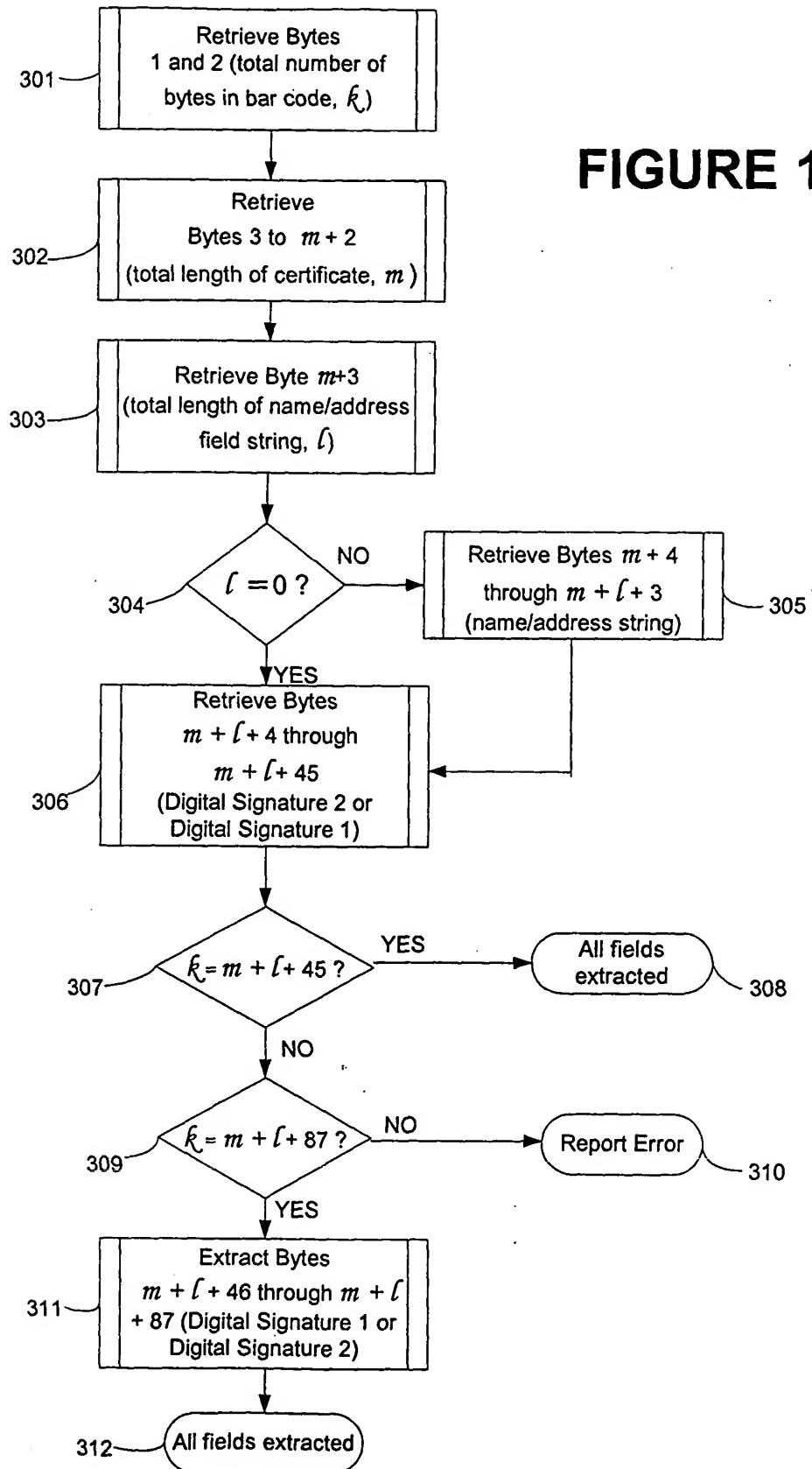
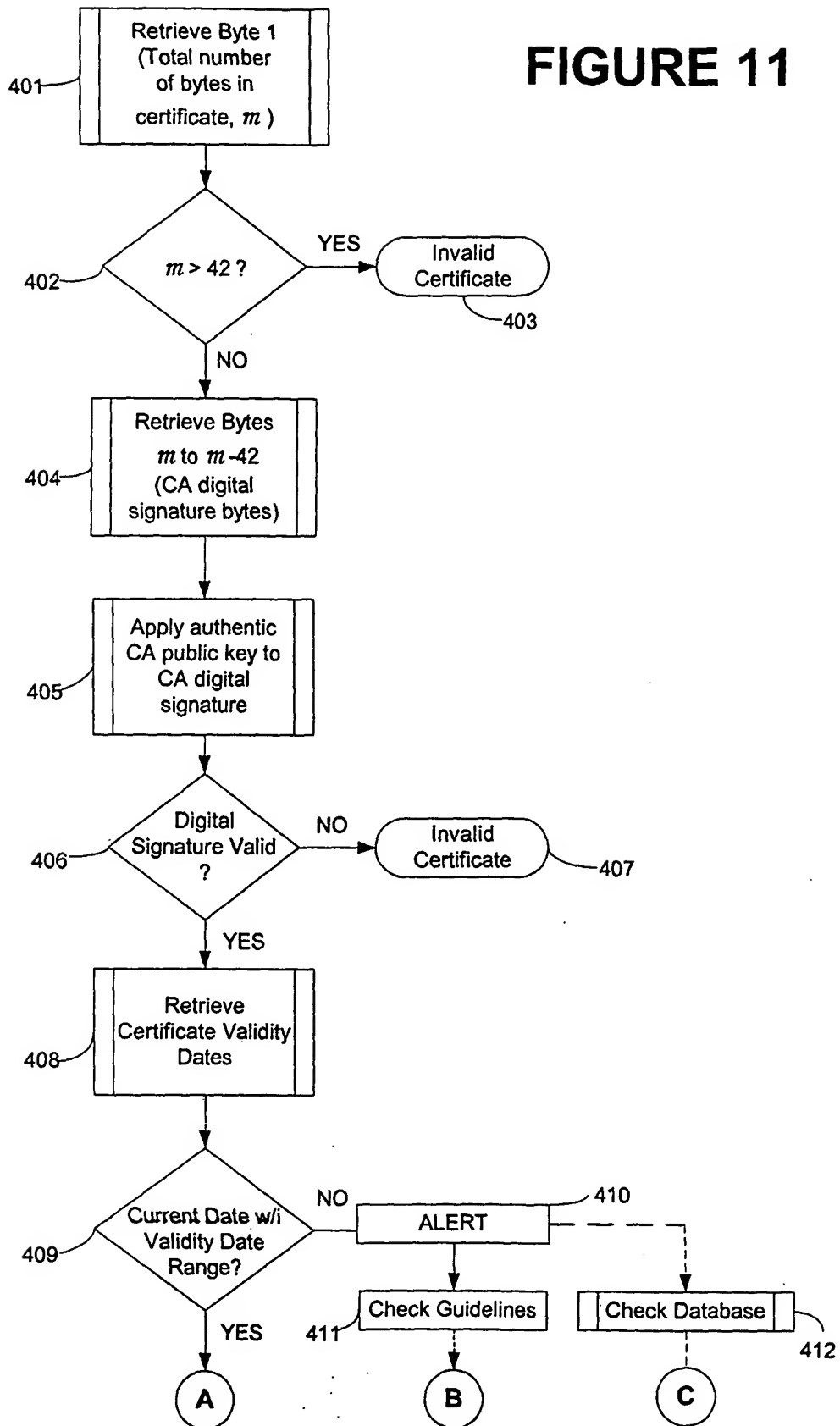
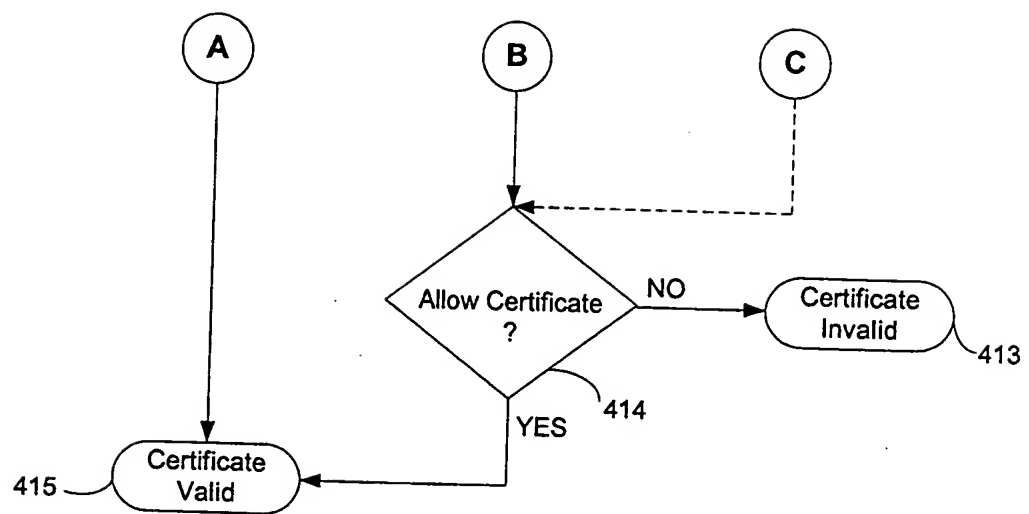


FIGURE 11





**FIGURE 11** (cont'd)